insulating film before the step of supplying said first and said second discharge gases, and said first and said second reactive gases are not supplied during the step of supplying said first and said second discharge gases, and

wherein an overall flow rate of gases supplied in said first chamber is maintained during a transition from said first reactive gas to said first discharge gas, and an overall flow rate of gases supplied in said second chamber is maintained during a transition from said second reactive gas to said second discharge gas.

108.(Amended) A method according to claim 27 wherein said flow rate of said discharge gas is 100 sccm.

REMARKS

Claims 23-29, 31-50 and 58-129 are pending. By this Amendment, claims 23-29, 31-37, 58, 64, 70, 76, 82, 87, 92, 98 and 108 are amended. Reconsideration in the view of the above amendments and the following remarks is respectfully requested.

Entry of this Amendment is proper under 37 C.F.R.§1.116 since the Amendment: a) places the application in condition for allowance for the reasons discussed herein; b) does not raise any new issues requiring further search and/or consideration since the Amendment amplifies issues previously discussed throughout prosecution; c) does not present any additional claims without canceling a corresponding number of finally rejected claims; and d) places the application in better form for an appeal, should an appeal be necessary. Entry of the Amendment is thus respectfully requested.

Applicants would like to thank Examiner Padgett for the courtesies extended to Applicant's representative, Mr. Jason Vick, during the December 6 personal interview.

The Office Action rejects claims 25, 27, 29, 64, 76, 87, 31-37, 92-103, 108, 117-118 and 128-129 under 35 U.S.C. §112, 2nd paragraph, as indefinite for failing to particularly point out indistinct the subject matter which Applicant regards as the invention. This rejection is respectfully traversed.

Applicants have amended the rejected claims in accordance with the Examiner's recommendation. Accordingly, Applicants respectfully submit that the rejected claims are definite under 35 U.S.C. §112, 2nd paragraph. Withdrawal of the rejection of claims 25, 27, 29, 64, 76, 87, 31-37, 92-103, 108, 117-118 and 128-129 are respectfully requested.

The Office Action rejects claims 25, 27, 29, 64, 76, 87 and 98 under 35 U.S.C. §112, 1st paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor, at the time the application was filed, had possession of the claimed invention. This rejection is respectfully traversed.

Applicants have amended the subject claims to recite, *inter alia*, " supplying radio frequency energy…to maintain plasma…." Support for this Amendment can be found throughout the specification.

Accordingly, Applicant respectfully submits that the clarification of the rejected claims obviates the rejection under 35 U.S.C. §112, 1st paragraph. Accordingly, withdrawal of the rejection of claims 25, 27, 29, 64, 76, 87 and 98 under 35 U.S.C. §112, 1st paragraph, is respectfully requested.

The Office Action rejects claims 23-29, 45-50, 58-59, 61-65, 67-82, 84-87, 89-104, 106-110 and 113-129 under 35 U.S.C. §103(a) as unpatentable over U.S. Patent No. 5,420,044 to Kozuka (hereinafter "Kozuka") in view of U.S. Patent No. 5,456,796 to Gupta et al. (hereinafter "Gupta"). This rejection is respectfully traversed.

Applicants would like to thank Examiner Padgett for her recommendation regarding the amendment to the claims during the Personal Interview. Accordingly, Applicants have amended the rejected claims to recite, *inter alia*, "that an overall flow rate of gases supplied in said chamber is maintained during transition." Support for these amendments can at least be found in Figs. 6-8 in the accompanying description of Applicant's specification.

In contrast, as discussed during the personal interview, both Kozuka and Gupta at least failed to teach, suggest or disclose maintaining an overall flow rate of gases as claimed.

Accordingly, since the cited references, either alone or in combination, fail to teach, suggest or disclose each and every aspect of the claimed invention, the cited references failed to render obvious the rejected claims. Accordingly, withdrawal of the rejection of claims 23-29, 45-50, 58-59, 61-65, 67-82, 84-87, 89-104, 106-110 and 113-129 under 35 U.S.C. §103(a) is respectfully requested.

The Office Action rejects claims 31-44 under 35 U.S.C. §103(a) as unpatentable over Kozuka in view of Gupta and further in view of Moi et al., Kaschmitter or Yamasaki et al. This rejection is respectfully traversed.

Applicants respectfully submit that the Moi, Kaschmitter or Yamasaki references failed to overcome the deficiencies as noted above in relation to Kozuka and Gupta. Accordingly, since the cited references, either alone or in combination, fail to teach,

suggest or disclose each and every aspect of the claimed invention, the references failed to render obvious claims 31-44. Accordingly, withdrawal of the rejection of claims 31-44 under 35 U.S.C. §103(a) is respectfully requested.

Applicants respectfully submit that the application is condition for allowance. Favorable reconsideration and prompt allowance of claims 23-29, 31-50 and 58-129 are respectfully requested.

Should the Examiner believe anything further is desirable in order to place the application in even better condition for allowance, the Examiner is encouraged to contact Applicants' undersigned representative at telephone number listed below.

Respectfully submitted,

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MARKED-UP COPY OF CLAIMS

Please amend the claims as follows:

23.(Amended) A film forming method comprising the steps of:

supplying hydrogen gas into a chamber;

supplying radio frequency energy in said chamber to generate plasma from said hydrogen gas by radio frequency discharge;

supplying a reactive gas into said chamber at a same flow rate as supplying said hydrogen gas; and

forming a semiconductor film over a substrate in said chamber by decomposing said reactive gas using said radio frequency energy,

wherein the step of supplying said hydrogen gas is discontinued with a start of the step of supplying said reactive gas and throughout the forming of said semiconductor film, and

wherein an overall flow rate of gases supplied in said chamber is maintained during a transition from said hydrogen gas to said reactive gas.

24.(Amended) A film forming method comprising the steps of:

forming an under film on a substrate;

supplying hydrogen gas into a chamber;

supplying radio frequency energy in said chamber to generate plasma from said hydrogen gas by radio frequency discharge;

supplying a reactive gas into said chamber at a same flow rate as supplying said hydrogen gas; and

forming a semiconductor film on said under film in said chamber by decomposing said reactive gas using said radio frequency energy,

wherein the step of supplying said hydrogen gas is discontinued with a start of the step of supplying said reactive gas and throughout the step of forming of said semiconductor film, and

wherein an overall flow rate of gases supplied in said chamber is maintained during a transition from said hydrogen gas to said reactive gas.

25.(Amended) A film forming method comprising the steps of:

forming a semiconductor film over a substrate in a chamber by decomposing a reactive gas using radio frequency energy supplied in said chamber;

supplying hydrogen gas into said chamber at a same flow rate as supplying said reactive gas; and

supplying said radio frequency energy to said hydrogen gas to [generate] maintain plasma from said hydrogen gas in said chamber by radio frequency discharge,

wherein said reactive gas is supplied into said chamber during the step of forming of said semiconductor film before the step of supplying said hydrogen gas, and the step of supplying said hydrogen gas is started with discontinuing a supply of said reactive gas, and

wherein an overall flow rate of gases supplied in said chamber is maintained during a transition from said reactive gas to said hydrogen gas.

26.(Amended) A film forming method comprising the steps of:

supplying a discharge gas into a chamber;

supplying radio frequency energy in said chamber to generate plasma from said discharge gas by radio frequency discharge;

supplying a reactive gas into said chamber at a same flow rate as supplying said discharge gas; and

forming a semiconductor film over a substrate in said chamber by decomposing said reactive gas using said radio frequency energy,

wherein the step of supplying said discharge gas is discontinued with a start of the step of supplying said reactive gas and throughout the step of forming of said semiconductor film, [and]

wherein an overall flow rate of gases supplied in said chamber is maintained during a transition from said discharge gas to said reactive gas, and

wherein said discharge gas does not contribute to film formation.

27.(Amended) A film forming method comprising the steps of:

forming a semiconductor film over a substrate in a chamber by decomposing a reactive gas using radio frequency energy supplied in said chamber;

supplying a discharge gas into said chamber at a same flow rate as supplying said reactive gas; and

supplying said radio frequency energy to said discharge gas to [generate] maintain plasma from said discharge gas in said chamber by radio frequency discharge,

wherein said reactive gas is supplied into said chamber during the step of forming of said semiconductor film before the step of supplying a discharge gas, and the step of supplying said discharge gas is started with discontinuing supplying said reactive gas, [and]

wherein an overall flow rate of gases supplied in said chamber is maintained during a transition from said reactive gas to said discharge gas, and

wherein said discharge gas does not contribute to film formation.

28.(Amended) A film forming method for forming a plurality of different films as a multilayer in a multichamber apparatus comprising a plurality of chambers coupled to each other, said method comprising the steps of:

supplying hydrogen gas into one of said chambers;

supplying radio frequency energy in said one of said chambers to generate plasma from said hydrogen gas by radio frequency discharge;

supplying a reactive gas into said one of said chambers at a same flow rate as supplying said hydrogen gas; and

forming a semiconductor film over a substrate as one of said different films in said one of said chambers by decomposing said reactive gas using said radio frequency energy therein,

wherein the step of supplying said hydrogen gas is discontinued with a start of the step of supplying said reactive gas and throughout the step of forming of said semiconductor film, and wherein each of said chambers forms at least one of said plurality of different films, and

wherein an overall flow rate of gases supplied in said chamber is maintained during a transition from said hydrogen gas to said reactive gas.

29.(Amended) A film forming method for forming a plurality of different films as a multilayer in a multichamber apparatus comprising a plurality of chambers coupled to each other, said method comprising the steps of:

forming a semiconductor film over a substrate as one of said different films in one of said chambers by decomposing a reactive gas using radio frequency energy supplied in said one of said chambers;

supplying hydrogen gas into said one of said chambers at a same flow rate as supplying said reactive gas; and

supplying said radio frequency energy to said hydrogen gas to [generate] maintain plasma from said hydrogen gas in said one of said chambers by radio frequency discharge,

wherein said reactive gas is supplied into said chamber during the step of forming of said semiconductor film before the step of supplying said hydrogen gas, and the step of supplying said hydrogen gas is started with discontinuing the supplying of said reactive gas, and wherein each of said chambers forms at least one of said plurality of different films, and

wherein an overall flow rate of gases supplied in said chamber is maintained during a transition from said reactive gas to said hydrogen gas.

31.(Amended) A method according to claim 23 wherein said semiconductor film is crystallized by irradiating said semiconductor film with a laser light, and said crystallized semiconductor film is used for fabricating a thin film transistor.

32.(Amended) A method according to claim 24 wherein said semiconductor film is crystallized by irradiating said semiconductor film with a laser light, and said crystallized semiconductor film is used for fabricating a thin film transistor.

33.(Amended) A method according to claim 25 wherein said semiconductor film is crystallized by irradiating said semiconductor film with a laser light, and said crystallized semiconductor film is used for fabricating a thin film transistor.

34.(Amended) A method according to claim 26 wherein said semiconductor film is crystallized by irradiating said semiconductor film with a laser light, and said crystallized semiconductor film is used for fabricating a thin film transistor.

35.(Amended) A method according to claim 27 wherein said semiconductor film is crystallized by irradiating said semiconductor film with a laser light, and said crystallized semiconductor film is used for fabricating a thin film transistor.

36.(Amended) A method according to claim 28 wherein said semiconductor film is crystallized by irradiating said semiconductor film with a laser light, and said crystallized semiconductor film is used for fabricating a thin film transistor.

37.(Amended) A method according to claim 29 wherein said semiconductor film is crystallized by irradiating said semiconductor film with a laser light, and said crystallized semiconductor film is used for fabricating a thin film transistor.

58.(Amended) A film forming method for fabricating a thin film transistor comprising the steps of:

supplying a discharge gas into a chamber;

supplying radio frequency energy in said chamber to generate plasma from said discharge gas by radio frequency discharge;

supplying a reactive gas into said chamber at a same flow rate as supplying said discharge gas; and

forming a gate insulating film over an insulating substrate in said chamber by decomposing said reactive gas using said radio frequency energy,

wherein said discharge gas is not supplied during the step of supplying said reactive gas and throughout the forming of said gate insulating film, and

wherein an overall flow rate of gases supplied in said chamber is maintained during a transition from said discharge gas to said reactive gas.

64.(Amended) A film forming method for fabricating a thin film transistor comprising the steps of:

forming a gate insulating film over an insulating substrate in a chamber by decomposing a reactive gas using radio frequency energy supplied in said chamber;

supplying a discharge gas into said chamber; and

supplying said radio frequency energy to said discharge gas to [generate] maintain plasma from said discharge gas in said chamber by radio frequency discharge at a same flow rate as supplying said reactive gas,

wherein said reactive gas is supplied into said chamber during the step of forming of said gate insulating film before the step of supplying said discharge gas, and said reactive gas is not supplied during the step of supplying said discharge gas, and

wherein an overall flow rate of gases supplied in said chamber is maintained during a transition from said reactive gas to said discharge gas.

70.(Amended) A film forming method for fabricating a thin film transistor comprising the steps of:

supplying a discharge gas into a chamber;

supplying radio frequency energy in said chamber to generate plasma from said discharge gas by radio frequency discharge;

supplying a reactive gas into said chamber at a same flow rate as supplying said discharge gas; and

forming a semiconductor film over an insulating substrate in said chamber by decomposing said reactive gas using said radio frequency energy,

wherein said discharge gas is not supplied during the step of supplying said reactive gas and throughout the forming of said semiconductor film, and

wherein an overall flow rate of gases supplied in said chamber is maintained during a transition from said discharge gas to said reactive gas.

76.(Amended) A film forming method for fabricating a thin film transistor comprising the steps of:

forming a semiconductor film over an insulating substrate in a chamber by decomposing a reactive gas using radio frequency energy supplied in said chamber;

supplying a discharge gas into said chamber at a same flow rate as supplying said reactive gas; and

supplying said radio frequency energy to said discharge gas to [generate] maintain plasma from said discharge gas in said chamber by radio frequency discharge,

wherein said reactive gas is supplied into said chamber during the step of forming of said semiconductor film before the step of supplying said discharge gas, and said reactive gas is not supplied during the step of supplying said discharge gas, and

wherein an overall flow rate of gases supplied in said chamber is maintained during a transition from said reactive gas to said discharge gas.

82.(Amended) A film forming method for fabricating a thin film transistor comprising the steps of:

supplying a discharge gas into a chamber;

supplying radio frequency energy in said chamber to generate plasma from said discharge gas by radio frequency discharge;

supplying a reactive gas into said chamber at a same flow rate as supplying said discharge gas; and

forming an under film on an insulating substrate in said chamber by decomposing said reactive gas using said radio frequency energy,

wherein said discharge gas is not supplied during the step of supplying said reactive gas and throughout the forming of said under film<u>, and</u>

<u>wherein an overall flow rate of gases supplied in said chamber is maintained during a transition from said discharge gas to said reactive gas</u>.

87.(Amended) A film forming method for fabricating a thin film transistor comprising the steps of:

forming an under film on an insulating substrate in a chamber by decomposing a reactive gas using radio frequency energy supplied in said chamber;

supplying a discharge gas into said chamber at a same flow rate as supplying said reactive gas; and

supplying said radio frequency energy to said discharge gas to [generate] maintain plasma from said discharge gas in said chamber by radio frequency discharge,

wherein said reactive gas is supplied into said chamber during the step of forming of said under film before the step of supplying said discharge gas, and said reactive gas is not supplied during the step of supplying said discharge gas, and

wherein an overall flow rate of gases supplied in said chamber is maintained during a transition from said reactive gas to said discharge gas.

92.(Amended) A film forming method for fabricating a thin film transistor comprising the steps of:

supplying a first discharge gas into a first chamber;

supplying first radio frequency energy in said first chamber to generate plasma from said first discharge gas by first radio frequency discharge;

supplying a first reactive gas into said first chamber at a same flow rate as supplying said first discharge gas; and

forming a semiconductor film over an insulating substrate in said first chamber by decomposing said first reactive gas using said first radio frequency energy,

supplying a second discharge gas into a second chamber;

supplying second radio frequency energy in said second chamber to generate plasma from said second discharge gas by second radio frequency discharge;

supplying a second reactive gas into said second chamber at a same flow rate as supplying said second discharge gas; and

forming a gate insulating film [adjacent to] on said semiconductor film in said second chamber by decomposing said second reactive gas using said second radio frequency energy,

wherein said first and said second discharge gases are not supplied during the step of supplying said first and said second reactive gases and throughout the forming of said semiconductor film and said gate insulating film, and

wherein an overall flow rate of gases supplied in said first chamber is maintained during a transition from said first discharge gas to said first reactive gas, and an overall flow rate of gases supplied in said second chamber is maintained during a transition from said second discharge gas to said second reactive gas.

98.(Amended) A film forming method for fabricating a thin film transistor comprising the steps of:

forming a semiconductor film over an insulating substrate in a first chamber by decomposing a first reactive gas using first radio frequency energy supplied in said first chamber;

supplying a first discharge gas into said first chamber at a same flow rate as supplying said first reactive gas; and

supplying said first radio frequency energy to said first discharge gas to [generate] maintain plasma from said first discharge gas in said first chamber by first radio frequency discharge,

forming a gate insulating film [adjacent to] <u>on</u> said semiconductor film in a second chamber by decomposing a second reactive gas using second radio frequency energy supplied in said second chamber;

supplying a second discharge gas into said second chamber at a same flow rate as supplying said second reactive gas; and

supplying said second radio frequency energy to said second discharge gas to [generate] <u>maintain</u> plasma from said second discharge gas in said second chamber by second radio frequency discharge,

wherein said first and said second reactive gases are supplied into said first and said second chambers during the step of forming of said semiconductor film and said gate insulating film before the step of supplying said first and said second discharge gases, and said first and said second reactive gases are not supplied during the step of supplying said first and said second discharge gases<u>, and</u>

<u>wherein an overall flow rate of gases supplied in said first chamber is maintained during a transition from said first reactive gas to said first discharge gas, and an overall flow rate of gases supplied in said second chamber is maintained during a transition from said second reactive gas to said second discharge gas</u>.

108.(Amended) A method according to claim 27 wherein said flow rate of said discharge gas <u>is 100 sccm.</u>